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ABSTRACT

Woodrow Wilson Fellows and Dissertation Fellows elected between 1945 and 1971 were surveyed to trace their educational careers, judge the effectiveness of the selection process, and determine what they are now doing with their education. Some elements covered by other national studies were included to make possible a comparison of the Woodrow Wilson Fellows with other groups of graduate students. Based on 6,169 responses from the 14,000 who were mailed questionnaires, information is provided on the degree completion rate, percentage of fellows attending 21 graduate schools, distribution of awards by sex, percentage of fellows in 23 fields of study, the time taken to complete their studies, reasons for delay in completion of degrees, the selection of a dissertation topic, financial support, change of fields in graduate study, employment rates, academic employment, nonacademic employment, and reasons for employment outside academe. The following observations are presented: financial support may be necessary in selected areas, including the humanities; more work needs to be done concerning dissertation fellows to determine how their awards affected their careers; more information is needed about women and graduate education to determine why they are discouraged from completing graduate work or why it takes them longer to complete their dissertations; and more study is needed to assess the value of sabbatical leaves in improving teaching quality. (SW)

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WHERE ARE THEY NOW?

a survey of

WOODROW WILSON FELLOWS

and

WOODROW WILSON DISSERTATION FELLOWS

elected between 1945 and 1971

1977 survey prepared by the Woodrow Wilson National Fellowship Foundation with support from The Ford Foundation.

HE 010 930

WOODROW WILSON FELLOWS
WOODROW WILSON DISSERTATION FELLOWS
1945-1977

The Woodrow Wilson Fellowship program was begun in 1945 to encourage college graduates in North America to consider college teaching as a career. Over a period of more than 25 years the competition came to be regarded as the national yardstick for academic excellence. This was particularly true for the 10 years of Ford Foundation support from 1958 on. Because of its prominent position in the field of education, considerable interest has been expressed in what actually happened to the approximately 18,000 Woodrow Wilson Fellows. (For the purposes of this study Fellows and Dissertation Fellows will be considered as Woodrow Wilson Fellows.)

In the spring of 1977 questionnaires were developed and mailed to approximately 14,000 of the Woodrow Wilson Fellows for whom the Foundation has current addresses. An effort was made not only to trace the Fellows' educational careers, in order to judge the effectiveness of the selection process, but also to determine what they are now doing with their education. Further, some elements covered by other national studies were included to make possible a comparison of the Woodrow Wilson Fellows with other groups of graduate students. (A copy of the questionnaire is attached.)

The study consists of the 6,169 responses to the questionnaire received by September, 1977. The responses from this group were compared with such known facts about the Fellows as the number of awards made to men and women, the number of honorary awards, the citizenship of Fellows, and the percent of awards made in the humanities, social sciences, and math/science. This comparison indicated that respondents accurately reflect the composition of the entire group.

The overall results of the study can be quickly summarized. As of the spring of 1977, 71.5% had received their Ph.D. or equivalent degree. Another 538 expect to complete their degrees, which would bring the total percent of those earning doctorates to 80.2%. Another 4.7% of the group have earned professional degrees such as LL.D. or J.D., M.D., and terminal degrees in such fields as theology, business administration, and library science. The remainder of the group consists of those who have completed all requirements for a Ph.D. except their dissertations and do not expect to finish, those with Masters degrees, and those who received no graduate degree. The percent of each degree group shown by sex and citizenship is:

	Ph.D.	All but Dissertation	Professional	M.A.	No Degree
U.S. Men	74.7	8.9	7.2	7.1	2.1
U.S. Women	56.6	12.7	4.4	22.1	4.2
Canadian Men	76.5	9.6	5.4	6.9	1.5
Canadian Women	47.8	7.5	-	38.8	5.9

For the purposes of making comparisons over a period of time, the responses were divided into cohorts of approximately five years each. The cohorts are: 1945-51 (.9%), 1952-57 (4.5%), 1958-62 (32.3%), 1962-67 (36.7%), and 1968 plus (25.7%).

DEGREE COMPLETION

Looking at the completion rates of the cohorts over the period of time from 1945-1977, there is some indication that fewer men are finishing their education at the master's level. This suggests that, for those who intend to teach at the college level, there has been increased pressure for them to have the advanced degree. Somewhat more obvious is the fact that since 1952 the Ph.D. completion rate for American women has increased from 50.8%

to 60.8%, and the percentage with only a Master's degree decreased from 34.4% to 20.4%. In the 1968 plus group, which probably has the greatest number of women who will still complete their degree work, the percent of Master's degrees continued its drop to a low of 14.9%. The percent of professional degrees awarded to women also shows a small but steady increase.

In 1966, Joseph Mooney, in his early study of Woodrow Wilson Fellows, reported that 41.6% of the men in the groups studied had received their doctorates, whereas only 16.5% of the women had, giving men a 2 1/2 times greater probability of completion. The gap, however, is decreasing. For the group as a whole the rate is now 1.33 times as great, and for the last cohort, the rate is only 1.17 times as great. Clearly the Woodrow Wilson National Fellowship Foundation was right in continuing to encourage and support women.

Of the approximately 170 graduate schools attended by Woodrow Wilson Fellows, the 21 with the largest number of Fellows as indicated by survey results are shown in the following table, in decreasing order of percent attending:

SCHOOLS ATTENDED

School	Percent
Harvard University	12.0
Yale University	7.5
Princeton University	5.3
Columbia University	4.9
University of California at Berkeley	4.8
Stanford University	4.3
University of Chicago	3.6
University of Wisconsin at Madison	3.5
University of Michigan	2.9
Cornell University	2.6
MIT	2.3
Johns Hopkins University	2.0
University of Indiana	1.6

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University of Pennsylvania	1.6
Northwestern University	1.5
University of Illinois	1.5
Duke University	1.4
New York University	1.2
University of Toronto	1.2
University of Virginia	1.1
University of North Carolina	.1

NOTE: During the last five years of the program ten graduate schools which were receiving direct financial aid from the Ford Foundation were excluded from the program for dissertation Fellows. They are the first ten schools on the list.

Initially awards were made to students in the humanities and social sciences in an effort to counterbalance the number of awards being made in the sciences immediately after World War II by the National Science Foundation. Beginning with the years of the Ford Foundation subsidy of the program, however, the competition was increased to include students in the sciences. Final results show that 38.5% of awards were made in the humanities, 40.9% in the social sciences, and 20.6% in math/science fields.

When the distribution of awards is broken down by sex of the recipient, results correspond with those from other studies of graduate education. The majority of the women were studying fields in the humanities (52.2%), and within this classification clustered in English/Comparative Literature and Foreign Languages/Linguistics. Even though women constitute only about 30 percent of the Fellows as a whole, in the field of foreign languages there are almost (94.4%) as many women as men. Percentages for U.S. women are. 52.2% humanities; 37.1% social sciences; and 10.7% math/sciences. Canadian men and women show the same differences, with a slightly increased tendency to go into the social sciences rather than the sciences. Fields

grouped under each heading are:

Humanities: Classics, English/Comparative Literature, Fine Arts, Philosophy, Religion, Music, Foreign Languages/Linguistics, $Other_1$

Social Sciences: American Studies, Archeology, Area Studies, Economics, Geography, History, Political Science, Psychology, Sociology/Anthropology, $Other_2$

Math/Sciences: Astronomy, Biology, Chemistry, Mathematics, Geology, Physics, Statistics, Computer Science, and $Other_3$.

The following table indicates the percent of Fellows in each of 23 fields. Smaller fields are grouped into "other" categories classified as humanities ($Other_1$), social sciences ($Other_2$), and math/science ($Other_3$). Fields are given in descending order of participation.

FIELDS OF STUDY

Field	Percent of Fellows
English/Comparative Literature	16.6
History	12.8
Foreign Language/Linguistics	7.9
Political Science	6.9
Mathematics	6.0
$Other_2$	5.7
Economics	5.2
Philosophy	5.1
Physics	4.6
Psychology	4.4
Sociology/Anthropology	3.5
Chemistry	3.0
Biology	2.6
$Other_3$	2.5
Classics	2.2
$Other_1$	2.1
Religion	1.7
Music	1.5
Fine Arts	1.4
Statistics/Computer Science	.9

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Field	Percent of Fellows
American Studies	.7
Archeology	.6
Astronomy	.6
Geology	.5
Area Studies	.4
Geography	.4

The statistical likelihood of completing a degree is increased significantly depending upon the field chosen. For the group as a whole, completion rates are best in Physics (91.0%), Mathematics (81.3%), and Philosophy (80.0%), in that order. The order changes somewhat for U.S. men alone. Women seemed to fare particularly badly in chemistry departments, and when their completion rate of 55.6% is removed from consideration, chemistry completion tops all others with a rate of 95.0%. Since the women as a group have done well in the sciences, the inference might be made that women are not supported and encouraged in the field of chemistry to the degree that men are. In biology a similar but not as drastic discrepancy occurs.

The 12 top fields in order of degree completion for U.S. men are Chemistry (95.0%), Physics (91.3%), Biology (90.3%), Geology (89.3%), Geography (88.2%), Archeology (87.5%), Other$_1$ (humanities: 87.2%), Classics (85.7%), Psychology (85.1%), Philosophy (81.6%), Mathematics (81.1%), and History (80.6%). Degree completion in all fields is shown in Table I by field, sex, and citizenship. Table II shows the total percentage of five degree classifications in each field.

As might be expected from this highly selected group, the time taken by Woodrow Wilson Fellows to complete their studies was less than the national rate in every category. Overall the degree completion rate for U.S. Fellows was 2.3 years faster than the national average; men completed 2.5 years faster, and the women 1.9. The Canadian men and women have been extracted

from this comparison because the statistics used are from the American Council on Education's A FACT BOOK of HIGHER EDUCATION: EARNED DEGREES, fourth issue 1976. Canadian statistics would have altered the results because on the average both men and women finish in a slightly shorter time. For the purposes of comparison, the table below shows mean time for the nation as a whole and Woodrow Wilson men and women in three general subject classifications.

MEAN Ph.D. COMPLETION RATES*

	National Mean 1958-1977	Woodrow Wilson Fellows U.S. Men	U.S. Women
Humanities	9.7	6.2	6.9
Social Sciences	8.2	6.4	7.0
Math/Science	6.8	5.5	5.7

Mean time taken to complete the doctorate over the period of the study shows a remarkable consistency, with two deviations. Women in the social sciences are steadily catching up with the male completion time. Beginning with a year's difference in elapsed time, the difference drops steadily through the last cohort, where the difference amounts to only .27%. The same phenomenon occurs in the sciences. The difference here is that the last cohort shows women's completion rates to be .4% faster than that of the men. Care must be taken in drawing any generalizations from these statistics, largely because the numbers are so uneven. U.S. women constitute only about 15% of the Fellows in the sciences, and, because they are in some sense pioneering in what have been considered male fields, the women in the sciences are undoubtedly, both by personal selection and graduate school selection, extremely well qualified.

As suggested by the last table, there can be considerable variation in the amount of time needed to complete a doctorate, and this depends upon

*Appended is Table III giving completion rates by field.

several variables, one of which is field of study. It is common knowledge that doctoral degrees can be acquired more rapidly in the sciences than in the social sciences, and the Woodrow Wilson Fellows' experience bears this out. Six fields were selected to be representative of the three general subject classifications, i.e., humanities, social sciences, and math/science. The table below shows the average time necessary to complete requirements for the Ph.D. except the dissertation (ABD) and the average total time to the degree in these selected fields.

TIME IN YEARS

Field	Requirements		Ph.D.	
	Men	Women	Men	Women
English	3.4	3.6	6.5	7.5
Philosophy/Religion	3.5	3.2	6.5	7.3
History	3.4	3.1	7.0	7.4
Economics	2.7	2.8	5.9	7.5
Mathematics	2.8	2.9	5.2	6.6
Chemistry	2.7	3.0	5.0	5.6

In general, those fields which show a large difference in the amount of time needed to complete requirements show a correspondingly large difference in time necessary to complete the degree. Of some interest is the fact that, while women complete requirements in virtually the same time that men do, it invariably takes them longer to finish their dissertations. Our statistical analysis does not provide evidence as to why this should happen, although there are some obvious areas, such as motivation, opportunity, and encouragement that might be investigated in depth.

Another variable which affects the time taken to complete a doctorate is the graduate school attended. At the twenty-one schools which had 5% or more of the Woodrow Wilson Fellows, variation in the time necessary to obtain a doctorate in history, for example, varies as much as 2 1/2 years, or in English as much as 3 years. The Mooney report suggested that there might be a correlation between the size of graduate departments and the length of time taken for a doctorate. Although there may be some validity to this hypothesis if the schools with large departments are taken in aggregate and compared with the schools with small departments, it does not hold true as a general rule in this study. If one, for instance, wished to have the opportunity to complete a doctorate in economics in the shortest possible time, the first two schools he would choose would be MIT and the University of Michigan. If he were interested in a degree in mathematics, his schools of choice might well include MIT, and the Universities of Chicago, Wisconsin, and Michigan. In Philosophy/Religion his clear choices would be the University of Wisconsin or Duke*.

To determine what other factors might influence completion of the degree, Ph.D's and ABD's were asked whether there had been a significant delay in completion of their dissertation and, if so, were asked to indicate reasons for the delay. Nearly half of those with doctorates reported a delay of some kind (Men 41.0%, Women 52.1%); as might be expected, a larger proportion of ABD's than Ph.D's reported significant delay (Men 66.7%, Women 73.3%). As the following table shows, the need to earn a living was the reason most often cited by men, and second most usual reason for women. Since, in

*Appended is Table IV showing relative size of graduate departments in 1968 and corresponding schools listed in order of degree completion time.

answer to another question, as many as 24.3% (1958-62 cohort) of the women have reported that their degree completion was interrupted by family responsibilities and the percent of men reporting a similar reason is never higher than 8.8%, the assumption could be made that "other" in this table includes family responsibilities.

REASON FOR DELAY IN COMPLETING DISSERTATION BY DEGREE AND SEX

	Ph.D.		ABD's	
	Men %	Women %	Men %	Women %
Earn living	34.6	30.0	36.8	28.5
No funds for research	6.1	4.7	6.1	7.0
Advisor not accessible	11.3	12.2	12.5	13.2
Topic too broad	13.2	12.4	14.9	12.9
Research materials not available	5.4	4.2	3.9	5.6
Foreign language problem	2.7	1.9	2.2	2.3
Statistics/computer science problem	1.9	1.8	1.4	2.0
Other	24.8	32.8	22.1	28.5

What this table does not show is that the percent of men with Ph.D.'s reporting that their dissertation was delayed by the necessity to earn a living decreases steadily over time. The figures show:

1945-51	1952-57	1958-62	1963-67	1968+
50.0%	42.5%	37.6%	33.3%	29.5%

Although the last years coincide somewhat with the years of the dissertation fellowships, the final cohort with the exception of the dissertation Fellows would be assumed to be writing their dissertations in the early seventies when graduate financial assistance was becoming increasingly difficult to find. The women Ph.D.'s show no such pattern, and the ABD's, both men and

women, report increasing difficulty over time. Forty-eight percent of the male ABD's and 30.4% of the female ABD's in the 1968 and later group gave this reason for delay.

Another interesting note related to the "delay table" is that proportionately more women than men chose their dissertation topics. They did not, however, have greater problems with such items as "too broad a topic" or "difficulty obtaining research materials" which relate directly to the dissertation topic. It may well be that their tendency to choose their own topics corresponded to their slightly greater difficulty in finding their advisors accessible.

The question of how a dissertation topic is chosen, whether the student chooses it himself or herself, decides upon a topic in conference with an advisor, whether the advisor does most of the decision-making or the topic is assigned depends to a certain degree upon the field of study.

Men	Humanities %	Social Sciences %	Math/Science %
Own choice	55.2	50.6	19.0
With advisor	38.9	43.6	49.0
Mostly advisor	5.3	5.7	28.5
Assigned	.5	.1	3.5

Aside from the previously mentioned fact that women are more likely to choose their topics themselves, data on their dissertation choice follows the same pattern.

Although a relatively small number of Fellows have their choice of dissertation topic dictated mostly or altogether by their advisors, the probability

of this happening is much greater in the sciences, with chemistry leading the field. Of the group reporting that their topics were mostly chosen by their advisors, 64.2% were in the math/science category; of those whose topics were assigned, 82.1% were studying mathematics or a science.

FINANCIAL SUPPORT

The assumption is usually made that financial support is more readily available to graduate students in the sciences than for those in either the humanities or the social sciences. Data from the Woodrow Wilson Fellows corroborate this view. Only 20.6% of the male Ph.D.'s in math/science reported delays because of the need to earn a living, while 40.5% of the same group in the humanities and 29.8% of the group in the social sciences reported a delay because of lack of money.

Financial support for graduate study takes three major forms; i.e., scholarships, assistantships, and outside work. Loans played a very small part in supporting the Woodrow Wilson Fellows regardless of cohort. In general, whatever funds are not supplied through one of the three sources listed above come from savings, which average about 18% for all years.

The pattern of support changes over the period of graduate study. The following table lists the three major sources of support during six years of study, showing the amount from each source in percentages.

GRADUATE SCHOOL FINANCIAL SUPPORT

Year	Scholarships %	Assistantships %	Outside work %
1	88.0	7.8	4.2
2	59.5	28.3	12.2
3	50.3	33.8	15.9
4	48.4	31.8	19.8
5	34.0	31.1	34.9
6	23.3	26.6	50.2

When financial support in the form of fellowships or assistantships is not available, many graduate students are obliged to work part-time or to take time off completely to earn tuition fees and subsistence income. The amount and kind of financial support available can also be inferred from patterns of enrollment. The following table shows the amount of time averaged by the Fellows of the two largest cohorts in full-time study, part-time study, and not enrolled.

ENROLLMENT DURING GRADUATE STUDY

	Humanities		Social Sciences		Math/Science	
'58-'62	M %	F %	M %	F %	M %	F %
Full Time	66.9	55.2	69.5	60.0	87.9	81.3
Part Time	13.0	20.2	11.8	14.1	5.0	6.8
Not Enrolled	20.1	24.5	18.6	25.9	7.1	12.0
'63-'67						
Full Time	74.1	60.9	73.5	67.0	88.5	92.6
Part Time	10.9	18.1	9.9	14.4	3.4	2.2
Not Enrolled	15.0	21.0	16.6	18.6	8.1	5.2

The assumption that greater support is available in the sciences is supported by the fact that students in the math/science category spend from 20% to 30% more time in full-time studies than students in the humanities, and almost that much more than students in the social sciences.

The earlier Fellows reported a degree of delay in their studies because of interruption by military or an alternative service (5.5%). Of these, 69.1% returned to graduate study. Assuming a total of 18,000 Fellows, approximately 300 were lost through this interruption. Almost twice as many did not come

back to graduate study after leaving because of family responsibilities, although the percent of returnees is the same, i.e. 69.2%. The fact that women are included in this last category explains the larger numbers found. The table, however, showing the percent of returnees and non-returnees over the period of the study, reflects changing social attitudes toward women's roles. Percentages are of the group as a whole.

GRADUATE STUDY INTERRUPTED BY FAMILY RESPONSIBILITY

Cohort	1952-57		1958-62		1963-67		1968-	
	M %	F %	M %	F %	M %	F %	M %	F %
Returned	8.8	47.7	6.8	24.3	3.9	16.0	5.6	7.9
Did not return	4.9	21.5	3.1	9.8	2.5	4.4	2.2	4.9

Although the decreasing rate of non-returnees goes up slightly for the last cohort of women, the possibility that women in this much younger group may yet return is strong. Should women stop returning to school in future years, however, such an indicator might be worth watching as predictor for changing social attitudes.

CHANGING FIELDS

Changing one's field of study after starting graduate school is another variable which will prolong the time needed to complete degree work. Thirteen and a half percent of the Fellows changed fields at some point, but this figure is not truly representative.* Something less than 10% is the usual number in any one field, but in some fields changing is so common that the data for these fields distort the overall picture. The most common changes

*See Table VI for changes by field.

involve leaving doctoral degree work to study law, business or some other form of administration, or social work. The category labelled "Other$_2$" in Table I reflects these changes. The statistics/computer science field has a change rate of approximately 70%; it is followed by other$_1$, other$_3$, and religion.

As might be expected the smallest percentage of people changing fields is found in the doctoral group and the largest in these with professional degrees. For men the percent of change occurring is next highest in the Master's group, then for those with no degree, and finally, for ABD's, who are about 10% more likely to change fields than the Ph.D.'s.

The most interesting set of figures occurs in the percentage of change in field when viewed over a period of time. The early group of men had a changing field figure of 11.5%; from this point the figure increases steadily until, in the 1968 plus group, it is 15.5%. The picture is exactly reversed for women, whose earliest group figure is 19.5%. This figure declines steadily, with the 1968 plus group showing a changing field rate of 14.2%, slightly lower than the comparable men's group. Obviously, if a change delays completion to some degree, the successive decline in major fields changes shown by women must be one contributing factor in their increased rate of completion.

Approximately 10% of the Fellows constitute the group which has finished all degree work except for the dissertation. Using the total figure of 18,000, this projects to an estimated 1800 ABD's, of whom the majority still expect to complete their degrees.

The present ABD pool consists of 43.3% in the humanities, 45% in the social sciences, and 11.7% in the math/science group. These figures correspond to

38.5% of the total Fellows in the humanities, 40.9% in the social sciences, and 20.6% in the math/science group. Table V which is attached shows the ABD pool by field and sex in percentages of the total number of Woodrow Wilson Fellows in each field.

EMPLOYMENT RATES

At the time of the survey, April, 1977, 84.6% of all Fellows reported that they were working full-time; 4.8% part-time; 2.3% have two or more part-time jobs; 2.7% are doing graduate study; 1.1% are doing postdoctoral work; and 4.5% are unemployed. The following tables show a breakdown of employment status for United States men and women.

EMPLOYMENT STATUS

U.S. MEN	PH.D. %	ABD %	Professional %	Masters %	No Advanced Degree %
Full time	93.7	69.7	85.4	87.5	84.7
One part time	1.2	6.9	1.0	4.3	1.2
Two plus part time	.9	5.4	1.7	1.4	3.5
Graduate study	.9	11.1	8.7	2.5	7.1
Postdoctoral	1.3	.3	1.7		
Unemployed	1.9	6.6	1.4	4.3	3.5
Employed full time, but looking	3.4	6.4	2.0	4.5	1.4
U.S. WOMEN					
Full time	77.2	44.7	70.8	51.2	49.2
One part time	10.1	18.1	9.2	20.6	17.5
Two plus part time	4.0	6.4	3.1	6.2	6.3
Graduate study	1.3	12.2	9.2	3.8	1.6
Postdoctoral	1.6	.5	1.5		
Unemployed	5.8	18.1	6.2	18.2	25.4
Employed full time, but looking	6.9	8.3	8.7	4.0	3.2

The data viewed over a period of time has no startling divergencies from what might be expected. Unemployment rises steadily for the men as their ages lower. Thus 5.3% of the Ph.D.s in the 1968 plus cohort and 8.5% of the ABD's in this group are unemployed as opposed to 0.0% in either degree classification from the two earliest cohorts. None of those with a Master's or without an advanced degree in the 1968 plus cohort report unemployment; this is also true of the two earliest cohorts.

When the data are broken down into subject categories, they show that unemployment of male Ph.D.'s is more common in the humanities than in either of the other two broad categories. Humanities Ph.D.'s represent 33.2% of the degrees and 45.6% of the unemployed. Men with doctorates in the math/science category have 27.0% of the degrees, but only 15.8% of them are unemployed. The specific field in which unemployment is greater than 10% is Fine Arts. There are, however, greater numbers of unemployed in the larger fields such as English/comparative literature and history, which report only 2.8% and 3.2% unemployed respectively.

For men ABD's unemployment is approximately the same with, however, a slightly larger percent unemployed in the social sciences. Men with a Master's degree in the humanities have an even greater percentage of unemployment (58.3%), math/sciences is proportional, but the social sciences, which had 42.7% of the students, show only 25.5% unemployed.

For women with Ph.D.'s the unemployment picture is somewhat different. Those with degrees in the humanities have the highest rate of unemployment (56.0%) but the rate of unemployment for women in the math/science field is greater than their percentage representation. Those with degrees in

the social sciences report the lowest rate of unemployment. The picture is the same for women who are ABD's or have Master's degrees. The fields which report more than 9.0% of the female Ph.D.'s unemployed are classics, biology, history, and foreign languages, in descending order. Again, the greater actual numbers are in history and foreign languages, and English/comparative literature, which reports only 3.9% unemployed.

The largest groups of women unemployed are those who are 10 to 15 years out of college, are ABDs, and those with Masters, or have no advanced degree. Women with Ph.D.'s show a steadily decreasing unemployment figure from a high of 10% for the 1952-57 cohort to 3.8% for the 1968 plus cohort. This percentage is smaller than the male percentage of the same cohort, but does not represent more women employed in actual numbers. Although 73.1% of this group are men, they have 74.8% of the full time positions earned by this group; the women total 26.9% of the group and 25.2% of the positions.

The following table shows a breakdown by field categories, degree and sex of those who are working full time but say they are looking for employment. Percent of representation in the group is shown in parentheses.

FULL TIME BUT LOOKING

MEN	Total %	Humanities %	Social Sciences %	Math/Science %
Ph.D.	3.4	28.1 (33.2)	42.7 (39.8)	29.2 (27.0)
ABD's	6.4	53.3 (40.1)	46.7 (46.1)	-- (14.0)
Professional	2.0	-- (26.2)	100.0 (56.9)	-- (14.0)
Masters	4.5	36.4 (40.5)	36.4 (42.7)	27.3 (17.9)
No Advanced Degree	1.4	-- (36.5)	100.0 (47.1)	-- (16.5)

WOMAN	Total %	Humanities %	Social Sciences %	Math/Science %
Ph.D.	6.9	55.8 (50.1)	32.6 (36.4)	11.6 (12.9)
ABD's	8.3	57.1 (51.9)	42.9 (41.2)	-- (7.0)
Professional	8.7	-- (26.2)	50.0 (53.8)	50.0 (20.0)
Masters	4.0	57.1 (56.8)	28.6 (31.1)	14.3 (11.8)
No Advanced Degree	3.2	-- (46.0)	100.0 (42.9)	-- (11.1)

The largest percentage of those employed full time but looking, which would also be the largest number, is in history; the next largest percentage is in physics.

ACADEMIC EMPLOYMENT

Of the Fellows reporting, approximately 70% are employed in education, and of that group somewhat more than half have tenure (54.1%). The average age of the Woodrow Wilson Fellows is 35 years, and, as might be expected, more than 63% are assistant or associate professors. Sixteen percent hold the position of professor; 9.0% instructor or lecturer; and 11.4% other positions.

More than half (59.2%) are at public institutions of higher education, 75.4% in four year colleges or universities or four year colleges and universities with graduate programs to the level of the doctorate. Fifteen percent did not define the status of their institutions; of the rest, 2.7% are at two year colleges, 3.6% in secondary or elementary education, and 2.8% in others.

Of the Fellows employed in higher education, including two year colleges 22.4% hold administrative positions with 3.8% classified as senior administrators, such as presidents, provosts, and deans of colleges. Women constitute 17.5% of the administrative group, and 14.7% of the senior administrators. Their lower representation in the senior group may be partially due to the fact that there were no women in the 1945-51 cohort, which contains such distinguished Fellows as the former president of Princeton University, Robert Goheen. Administrators seem to come equally from all disciplines. The humanities, social sciences, and math/sciences are represented in approximately the ratio of awards made in these fields, particularly for male administrators. A somewhat greater number of women administrators come from the humanities.

Publication is apparently not confined to the Fellows who are in higher education as 74.5% of the respondents compared with 70% in academe reported that they had published books or articles, or both. Of this group, 4.0% have published books only; 61.9% articles only, and 34.0% both books and articles.

Twenty-six percent of the Fellows with doctorates have received at least one post-doctorate fellowship; 16% two; 10.1% three; and 12.3% four or more. As would be expected, the greatest number of such fellowships are reported by the oldest Fellows. Fellowships are spread fairly evenly among the humanities, social sciences, and math/science; the humanities average 2.2 fellowships, the social sciences 2.7, and math/science 2.5. Canadian men report a significantly greater number than American men of postdoctoral fellowships in the social sciences, particularly archeology and history.

Although women tend to trail men in postdoctoral fellowship awards, archeology tops all fields by awarding almost twice as many fellowships to men. The Woodrow Wilson Fellows report a slightly higher incidence of awards to women, however, in such diverse fields as classics, religion, history, economics, and physics.

NON-ACADEMIC EMPLOYMENT

The thirty percent of the Fellows who are employed outside academe are pursuing careers in a wide spectrum of professions, but the largest single group is to be found in federal government. This group represents 5.2% of the Fellows, or an estimated 930 of all Fellows. The following table shows representative professions and the percent of this group each contains.

WOODROW WILSON FELLOWS EMPLOYED OUTSIDE ACADEME

Private Non-Profit Organizations	%
Educational	6.9
Research	5.4
Religious	2.5
Artistic	.9
Health Care	2.3
Other	2.8
	20.8

Business or Industry	%
Finance	2.9
Manufacturing	5.2
Printing and Publishing	3.3
Communications	2.2
Environment	.2
Other	10.0
	23.8

Other	%
Ministry	2.3
Law	9.2
Medicine	2.5
Creative	3.8
Consulting	3.2
Housewife/husband	8.4
Other	3.6
	33.0

Government	%
Federal	16.0
State	4.6
Local	1.9
	22.5

When asked whether their present positions made use of their graduate training, 63.5% said "Yes." Men were slightly more likely to say "yes," 66%, as opposed to 56.9% of the women. Of the men in the humanities, 57.5%

said "yes;" 70.8% in the social sciences; and 65.3% in math/science. Figures for women show the same relationships even though there were slightly fewer yeses in each category.

To illustrate how male Fellows used their graduate training, fields with a significant number of male Fellows outside academe are listed with the percent of the group found in private non-profit organizations, business or industry, self-employed, or in government positions.

NON-ACADEMIC EMPLOYMENT OF MALE FELLOWS

Field	Private Non-Profit %	Business/ Industry %	Self-employed %	Government %
English	20.0	33.3	30.0	16.6
Philosophy	11.4	25.7	42.9	20.0
Religion	24.4	--	70.7	4.9
Foreign Language/ Linguistics	24.4	34.1	26.8	14.6
$Other_2$	7.0	14.0	47.6	31.5
Economics	18.2	35.4	14.1	32.3
History	18.4	24.3	21.4	35.9
Political Science	18.3	14.4	24.0	43.3
Chemistry	25.5	47.1	5.9	21.6
Mathematics	8.0	66.7	8.0	17.3
Physics	23.6	38.7	6.6	31.1

Mathematicians are hired by industry at every degree level, as are historians and men in English, economics and political science. Ph.D.'s in history, political science, and economics are much more likely to go into government. Ph.D.'s in physics split about evenly between government and industry with the remainder in private non-profit organizations. $Other_2$ includes lawyers, which accounts for its heavy representation in the self-employed category and in government.

Women, who constitute 32.4% of those employed outside of academe, are more apt to be self-employed than are the men; 48.5% as against 27.1% of the men.

NON-ACADEMIC EMPLOYMENT OF FEMALE FELLOWS

Field	Private Non-Profit %	Business/ Industry %	Self-employed %	Government %
English	19.0	19.0	50.0	12.0
Fine Arts	20.0	-	73.3	6.7
Music	7.1	7.1	85.7	-
Foreign Language/ Linguistics	15.5	13.8	46.6	24.1
Other[2]	20.6	7.9	41.3	30.2
History	19.1	10.6	51.1	19.1
Political Science	24.0	8.0	28.0	40.0
Psychology	25.6	7.7	46.2	20.5

These figures are probably more indicative of what openings are available than a matter of choice. Women in business with backgrounds in English, for example, have a variety of degrees, with almost twice as many at the Master's level. Many women do pursue careers directly related to their fields and the female Ph.D.'s in political science, also, are in government. Psychologists, (who have more Ph.D.'s than any other group of women outside academe (69.7%)) are undoubtedly employed in positions related to their training; and a number (25.6%) have their own practices.

Viewed from the perspective of age, some patterns occur in employment. Fellows in the humanities, both men and women, are more likely to be self-employed as they get older. One Fellow wrote in explanation of his choice, "I've now reached the miserable conclusion that America offers very little work within an organization that can be satisfying." This Fellow happened to be moving out of teaching to self-employment, but the same reasoning may well apply for those in business. For the three largest cohorts of men, the percent employed in business or industry goes from 32.8% of the youngest to 20.0% of those who have been out of college fifteen to twenty years. The corresponding business figure for women goes from 20.0% of the youngest

cohort to 12.3% of those 15 to 20 years out of college. Non-profit organizations also seem to have greater attraction for older Fellows in the humanities.

The social sciences show a self-employed percentage that remains the same throughout the age groups, and the percent in business, although it varies from cohort to cohort, is essentially the same. Younger social science Fellows are more heavily concentrated in government and have fewer representatives in private non-profit organizations than the older Fellows. Their places are filled by young women in the social sciences; 35.4% of the 25 to 30 year old women are in private non-profit employment compared with 18.2% of the 35 to 40 year olds.

The math/science group shows a drop in employment at private non-profit organizations in the younger cohorts, and a concomitant increase for the men in employment in government. Although older women mathematicians and scientists are in government in fair numbers, the younger ones show a sharp preference for business and industry, perhaps due to the fact that these ranks are newly opened to them. Only 8.0% of the 35 to 40 year old women scientists and mathematicians in business, but 36.8% of the 25 to 30 year old group are.

The Fellows working outside academe were asked to give the most important reason for doing so. The following chart gives their reasons divided by cohorts to show changes since 1945, and by sex.

REASONS FOR EMPLOYMENT OUTSIDE ACADEME

By Cohort - Male	45-51 %	52-57 %	58-62 %	63-67 %	68 plus %
Prefer to education/ research position	58.3	52.9	41.2	39.1	34.4
Better pay	8.3	14.7	10.8	8.3	6.6
Location preference	-	2.9	3.2	4.2	2.5
Education/research position not available	-	11.8	18.4	22.9	29.5
Other	33.3	17.6	26.4	25.5	27.0

REASONS FOR EMPLOYMENT OUTSIDE ACADEME

By Cohort - Female	45-51 %	52-57 %	58-62 %	63-67 %	68 plus %
Prefer to education/ research position	-	20.0	34.1	32.3	24.4
Better pay	-	-	5.4	3.6	7.7
Location preference	-	20.0	8.5	4.8	5.5
Education/research position not available	-	10.0	19.4	25.7	35.2
Other	-	50.0	32.6	33.6	27.5

The fields in which men report a strong preference for non-academic work are religion and political science; those fields which report the largest percentage unable to find education or research positions are chemistry, foreign languages/linguistics, mathematics, history, and physics. Again the largest actual numbers would be in history, and this figure would include the women in history, 38.7% of whom report that such a position is not available. Almost as large a percentage of women (40.7%) as men (43.3%) report positions in foreign languages not available. Care should be taken in generalizing from the figures of the earliest cohort of men which has so few people working outside academe that projections may not be reliable.

Some variations in answers over time may be traced to changing values in the maturing process, specifically men's answers to the question of better pay. The possibility should not be ruled out, however, that the answers represent a genuine shift in social values. Both factors should be considered if this question is explored in depth.

Men's responses to the availablity of education/research positions viewed in conjunction with their willingness to relocate for employment undoubtedly presents an accurate picture of changing employment patterns. For women,

however, for whom location carries a greater weight, the patterns of available employment in education are less clear. It is significant, though, that location preference for women drops dramatically from a high of 20.0% for the 1952-57 cohort to 8.5% for the 1958-62 cohort, suggesting that women have begun to see their roles as educators assume greater importance in their lives. Although at this point we can only conjecture about what is included in the "other" reasons women list, the same dramatic change occurs in this category at the same point in time.

It is difficult to know what reasons are actually paramount in the answers to the question about preference. Preliminary in depth research of non-academic employment by Ph.D.'s reported by Dr. Lewis Salmon of the Higher Education Institute of Los Angeles suggests that there is some element of rationalization in these answers. At least 40% of the Woodrow Wilson Fellows outside academe have been full-time academics at some point. This is more likely to have been the case with those Fellows in the social sciences, particularly the field listed as "Other$_2$," which includes a number who have gone into management or administration, often in areas having to do with policy making. It might be of interest to determine in greater depth what motivates Fellows who begin or complete graduate education and then go on to work outside in order to find out how they have integrated their education and careers.

There may be very cogent reasons which would be helpful in assessing the value of graduate study. One of the Fellows outlined his career through graduate education into federal government as follows:

> I was attracted to linguistics. Briefly, I was convinced that this field offered a paradigm and some answers with regard to explaining human behavior; why people did what they did. I expected that the techniques developed by linguists, psychologists, philosophers, anthropologists, and others in studying human speech capabilities would generalize.

> To make a long story short, the field of linguistics met all my expectations and at the end of two years of full-time study I had met my goals...(and) I switched from the high road of theory to the low road of actual practice.

QUESTIONS RAISED BY THE SURVEY

The goal in graduate education now is to insure that those students committed to teaching as a career receive the kind of help which will make it possible to turn out the highest quality college teachers. From the data on completion rates and on financing of graduate education, the conclusion could be drawn that financial support may still be necessary in selected areas. Students in the humanities too often seem, near the end of their degree work, to find themselves struggling to maintain themselves, their families, and their education in a piecemeal fashion. At the time they are working on the summa of their educational career, they can give only partial attention to it. This sort of condition is described by one of the Fellows who wrote, "I took a full-time teaching position with my dissertation about two-thirds completed. The demands of this position caused me to lose ground on my dissertation, and this in turn led to a growing mental block about the whole thing." More work needs to be done on the Woodrow Wilson Dissertation Fellows to determine how their awards affected their careers. It may be, as one reported, "Without the Woodrow Wilson Dissertation Fellowship I might very well not be where I am today. The fellowship enabled me to do foreign area research and essentially to complete my dissertation before I assumed my first teaching position. Neither of these advantages were shared by my less fortunate peers." Furthermore, does an uninterrupted year actually permit a degree of concentration which can turn marginal work into excellent work? The emphasis

of research on dissertation awards should be on their usefulness in improving the quality of teaching. It may be that a small and highly selective dissertation program in the humanities and non-quantitative social sciences would be valuable.

Many assumptions have been made about women and graduate education. Research on the relationship between women and their departments viewed from both perspectives might reveal why they are discouraged from completing their graduate work, or why it takes them so much longer to finish their dissertations. Such information could provide the basis for programs with a definite goal.

There is a great interest in the question of using graduate education in work in non-traditional ways. More than 50% of the Fellows, when asked for suggestions about programs the Foundation might consider checked "retraining teachers for work outside academe." It would be useful to discuss in depth with Fellows who are now in non-academic employment, what elements of their education they are using in their work. The responses from such a highly selective group could be helpful in casting light on graduate education in relation to organizational processes in non-academic institutions. How much, for example, is "teaching" an element in different organizations? One Fellow, who spends a great deal of time in demonstrating the application of quantitative methods in management and applied research, says his job has a strong teaching dimension. Were he and his employers aware of this component in his job when he was hired? There are undoubtedly other related processes common to both education and the non-academic world. Such research is the first step in relating education as a whole to non-academic work, and would suggest steps that might be taken to educate

young people and employers about non-traditional uses of graduate education. It might be immediately useful to those academics who are considering other professions.

The value of sabbatical leaves is an important question as financial strictures on educational resources increase. The question to be determined is whether sabbaticals actually provide a substantial return by improving teaching quality. Only 40.9% of the Woodrow Wilson Fellows have ever had a sabbatical leave. Of those who have taken leaves overseas, 66% went to western Europe. The lowest percentages are for leaves in eastern Europe and Russia, which may be due to the difficulty in gaining access. The next lowest percentage, 2.4%, went to Africa, which suggests that academic knowledge of the third world may still be quite circumscribed.

Sabbatical leaves serve a variety of purposes. One Fellow reports of his leave quite simply, "the semester respite from teaching, my first after five and a half years, renewed my enthusiasm for the craft." Another writes that one of his "leave" type activities involved holding:

> ...a Visiting Teaching position at another university, and this was exceptionally valuable. As a Visiting Professor I was free from certain kinds of Departmental and University obligations and therefore, much more able to concentrate solely on my teaching, my research (with difficulty, however), and on taking personal and professional advantage of a new location and a new set of colleagues. My teaching improved since I had a new, or at least different, student clientele to work with. All in all, it was one of the most valuable experiences I have had.

This is one kind of change which will become increasingly rare as faculty mobility decreases.

A third Fellow stated that his time outside education improved the quality of his teaching. He is an anthropologist who does field research mostly "developing marine resources in less developed countries, [which] has expanded my abilities as an anthropologist in many ways." A Canadian Fellow who is using his leave to study the effects of tariffs on the distribution of income to lower, middle, and upper class income groups will bring valuable first hand experience and information back to his economics classroom. It may be that we have not produced a broad enough view of the "working teacher" which could be encouraged through a sabbatical program emphasizing a "hands-on" approach. Since everyone, regardless of profession, grows stale and restless after an extended period of time at a single pursuit, research which validated the worth of sabbaticals might conclude that they should be extended to people in organizations outside academe.

Another area in which the Fellows indicated great interest was the question of retraining college teachers for adult education. What little is known about the elements of such retraining is not yet available to the academic profession at large. Fellows who have been in the profession for some time and have had an opportunity to engage in adult education could be a useful resource in determining what kinds of help, if any, should be developed to answer the needs of adult education.

SUMMARY

There can be little question, judging both from the data presented and the fact that, in the last twenty-five years college teaching has become a prestigious occupation, the Woodrow Wilson Fellows program with Ford Foundation support has been highly successful. Because there are so many Fellows currently teaching, much more might be learned about the process

of education, working from the basis of their experience, which would help, in the long run, to put some of the spirit of excitement back into learning and teaching.

It is important to education to be able to bring programs into being which will enable graduate education to refute the charges of one Fellow who in outlining her reasons for leaving an academic career for law said,

> Basically, I was dissatisfied with what life in the academic world had become during the '70's....undergraduate and graduate students alike viewed the educational process as one of certification...instead of an opportunity for learning ...sabbaticals or any form of paid leave became things of the past and there was no time for research and little for even the obligatory and unoriginal articles one publishes in order to get tenure. In short, it was no longer fun, or interesting, and only of dubious utility.

TABLE I

Degree Completion by Field, Sex, Citizenship

	Ph.D.				A.B.D.				Prof.				M.A.				No Advanced Degree			
	USM	USW	CM	CW	USM	USW	CM	CW	USM	USW	CM	CW	USM	USW	CM	CW	USM	USW	CM	CW
Classics	85.7	57.5	64.3	-	4.8	5.0	14.3	-	2.4	5.0	14.3	-	4.8	22.5	7.1	-	2.4	10.0	-	-
Eng./Comp.Lit.	75.1	57.8	73.0	66.7	10.4	12.6	8.1	8.3	2.4	.8	2.7	-	9.8	26.3	13.5	25.0	2.2	2.4	2.7	-
Fine Arts	64.5	51.0	50.0	-	16.2	21.6	50.0	-	-	2.0	-	-	16.1	23.5	-	33.3	3.2	2.0	-	66.7
Philosophy	81.6	71.8	71.4	100.0	8.5	12.8	14.3	-	5.1	2.6	7.4	-	3.0	10.3	7.1	-	1.7	2.6	-	-
Religion	51.2	46.7	75.0	50.0	4.9	13.3	-	-	35.4	6.7	25.0	-	6.1	26.7	-	50.0	2.4	6.7	-	-
Music	60.3	30.0	50.0	-	15.5	20.0	25.0	50.0	5.2	6.7	-	-	17.2	30.0	25.0	50.0	1.7	13.3	-	-
For.Lang./Ling.	75.4	62.1	83.3	54.5	12.1	11.4	-	9.1	3.4	2.7	-	-	6.9	20.5	11.1	36.4	2.2	3.2	5.6	-
Other$_1$.	44.2	38.5	75.0	33.3	13.0	12.8	25.0	-	20.8	2.6	-	-	18.2	43.6	-	66.7	3.9	2.6	-	-
Other$_2$.	25.9	21.9	50.0	-	7.3	11.4	12.5	-	47.4	25.7	37.5	-	15.1	33.3	-	-	4.3	7.6	-	-
Amer. Studies	71.4	66.7	-	-	17.9	13.3	-	-	-	6.7	-	-	10.7	13.3	-	-	-	-	-	-
Archeology	87.5	77.0	100.0	-	8.3	15.4	-	-	-	-	-	-	-	-	-	-	4.2	7.7	-	-
Area Studies	68.75	12.5	-	-	12.5	37.5	50.0	-	6.25	-	-	-	12.5	50.0	50.0	-	-	-	-	-
Economics	77.3	65.2	73.0	100.0	11.3	13.0	13.5	-	3.2	-	5.4	-	6.1	21.7	8.1	-	2.0	-	-	-
Geography	88.2	-	80.0	100.0	-	66.7	20.0	-	-	-	-	-	11.8	33.3	-	-	-	-	-	-
History	80.6	59.6	79.5	7.7	9.3	16.1	5.1	-	3.2	1.9	5.1	-	5.5	17.4	10.3	84.6	1.4	5.0	-	7.7
Poli. Sci.	72.1	54.8	78.3	-	10.5	15.1	13.0	33.3	6.8	5.5	4.3	-	7.1	20.5	-	66.7	3.4	4.1	4.3	-
Psychology	85.1	73.2	87.0	100.0	5.7	7.2	8.7	-	2.1	1.0	-	-	5.7	11.3	4.3	-	1.4	7.2	-	-

Soc./Anthro	73.0	71.2	71.4	40.0	16.4	15.1	21.4	20.0	4.1	1.4	7.1	-	3.3	9.6	-	20.0	3.3	2.7	-	20.0
Astronomy	75.9	100.0	100.0	-	20.7	-	-	-	-	-	-	-	3.4	-	-	-	-	-	-	-
Biology	90.3	70.8	100.0	-	3.9	4.2	-	-	2.9	4.2	-	-	2.0	14.6	-	-	1.0	6.25	-	-
Chemistry	95.0	55.6	100.0	-	.7	8.9	-	-	.7	-	-	-	2.8	33.3	-	-	.7	2.2	-	-
Mathematics	81.1	-	82.8	100.0	7.4	-	3.4	-	1.0	-	3.4	-	7.7	-	6.9	-	2.7	-	3.4	-
Geology	89.3	100.0	100.0	-	10.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Physics	91.3	81.8	91.7	-	4.3	18.2	-	-	.8	-	-	-	2.4	-	-	-	1.2	-	8.3	-
Stat./Comp.Sci.	65.8	44.4	100.0	-	15.8	22.2	-	-	2.6	-	-	-	15.8	22.2	-	-	-	11.1	-	-
Other[3]	55.3	40.0	50.0	-	2.1	6.7	12.5	-	33.0	26.7	25.0	-	8.5	22.2	12.5	-	1.1	4.4	-	-

Note: Percentages do not always add up to exactly 100.0 per cent because of rounding

TABLE II

Total Percentage of Degrees Awarded by Field

	Ph.D. %	ABD %	Professional %	MA %	No Degree %
Classics	75.0	5.9	4.4	10.3	4.4
English/Comparative Literature	68.5	11.1	1.8	16.3	2.3
Fine Arts	54.0	19.5	1.1	20.7	4.6
Philosophy	79.7	9.5	4.9	4.3	1.6
Religion	51.5	5.8	30.1	9.7	2.9
Music	48.9	18.1	5.3	22.3	5.3
Foreign Language/ Linguistics	69.2	11.25	2.9	14.0	2.7
$Other_1$	43.1	13.0	13.8	26.8	3.3
$Other_2$	25.2	8.7	40.6	20.3	5.2
American Studies	69.8	16.3	2.3	11.6	-
Archeology	84.6	10.3	-	-	5.1
Area Studies	46.2	23.0	3.8	26.9	-
Economics	76.0	11.5	3.2	11.5	1.6
Geography	76.9	11.5	-	11.5	-
History	75.0	10.4	2.9	9.5	2.1
Political Science	68.9	11.6	6.4	9.5	3.5
Psychology	81.3	6.4	1.5	7.4	3.3
Sociology/Anthropology	71.5	16.3	2.8	5.6	3.3
Astronomy	81.6	15.7	-	2.6	-
Biology	84.6	3.8	3.2	5.8	2.6
Chemistry	85.9	2.6	.5	9.9	1.0
Mathematics	81.3	7.0	1.2	7.6	2.8
Geology	90.0	10.0	-	-	-
Physics	91.0	4.7	.7	2.2	1.4
Statistics/Computer Science	64.7	15.7	2.0	15.7	2.0
$Other_3$	50.3	4.1	30.6	12.9	2.0

TABLE III

Mean time to completion of requirements and to Ph.D. completion by selected fields and schools for U.S. men and women

	History		English		Phil./Religion		Economics		Mathematics		Chemistry	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Group mean												
Requirements	3.4	3.1	3.3	3.5	3.5	3.2	2.7	2.8	2.8	2.9	2.7	3.0
Ph.D. Completion	7.0	7.4	6.2	7.0	6.5	7.3	5.9	7.5	5.2	6.6	5.0	5.6
Harvard	2.6	2.6	3.4	3.6	3.6	3.5*	2.7	2.0	2.6	-	2.6	4.8
	6.6	7.4	6.5	7.5	7.2	7.5*	6.2	7.0	5.2	-	2.7	7.7
Columbia	3.6	3.0	4.5	3.7	4.3	-	3.5*	-	2.6	-	2.0	2.0*
	3.0	7.4	6.6	5.9	7.3	-	7.5*	-	5.0	-	5.0	3.0*
Berkeley	4.2	3.5	4.5	3.5	5.0*	-	2.7	-	3.2	-	2.6	3.0
	8.3	7.5*	6.9	6.5	7.0*	-	7.0	-	5.6	-	4.9	4.0
Chicago	3.9	3.5	4.5	3.0	5.3	4.5*	2.8	4.0*	2.7	4.0*	1.8	-
	7.1	10.0	7.2	10.0	8.0	10.0*	6.8	8.0*	4.3	6.0*	3.8	-
Princeton	3.2	-	2.3	2.0	2.8	-	2.6	-	1.8	-	2.5	-
	6.5	-	5.1	3.0	5.2	-	6.0	-	4.9	-	4.7	-
Stanford	3.3	3.7	4.0	3.9	3.25	3.0*	3.4	3.0*	2.7	-	3.5	7.0*
	6.5	7.0	6.0	6.7	7.0	6.0*	6.1	7.0*	5.3	-	6.5	8.0*
Wisconsin	4.5	-	5.0	4.8	3.0	-	4.0*	3.0*	3.4	4.0*	2.8	-
	8.1	-	8.0	7.8	5.0	-	6.0*	7.0*	4.9	8.0*	4.8	-
Michigan	3.5	4.0*	4.6	5.7	3.2	-	3.25	3.0*	4.2	-	-	-
	8.5	8.0	7.0	8.0	5.9	-	5.25	4.0*	4.75	-	-	-
Cornell	3.25	3.0*	3.4	5.3	2.8	2.0*	-	-	2.25*	3.0*	3.0*	-
	6.1	5.0	5.4	8.8	6.8	5.0*	-	-	7.0*	5.0*	5.0*	-
Johns Hopkins	2.5	2.0*	4.75	3.0	3.2	-	2.5	3.0*	-	-	3.0*	-
	7.6	5.0	6.75	8.0	7.2	-	6.5	10.0*	-	-	4.0*	-

M.I.T.	-	-	-	-	-	-	2.2	2.0*	2.8	2.0*	2.6	3.0*
	-	-	-	-	-	-	5.0	8.5*	4.4	10.0*	4.7	6.0*
U. of Pennsylvania	4.0*	3.0*	3.0	3.3	-	3.0*	3.0*	-	3.0*	-	-	-
	6.0*	6.0*	5.0	6.7	-	10.0*	9.0*	-	4.0*	-	-	-
Indiana	5.5	-	5.1	8.0*	3.0*	-	-	-	-	-	-	-
	8.9	-	8.1	10.0	4.0*	-	-	-	-	-	-	-
Northwestern	2.8	-	3.25	3.0	2.3	-	-	-	2.0*	-	3.0	-
	6.8	-	5.75	4.0	5.3	-	-	-	4.0*	-	4.2	-
Virginia	3.3	-	5.5*	4.3	3.0*	-	-	3.0*	-	-	-	-
	5.9	-	7.5	8.0	4.0*	-	-	6.0*	-	-	-	-
Illinois	3.0	-	7.5*	3.0	3.0*	2.0*	-	-	3.7	-	4.25	2.3
	4.75	-	9.5*	6.0	6.0*	5.0*	-	-	5.7	-	6.5	5.7
Duke	3.9	-	4.0	4.0	4.0*	4.0*	3.3	-	-	-	3.0*	-
	6.6	-	6.0	6.0	5.0*	8.0*	6.3	-	-	-	4.0*	-
Toronto	2.0*	-	3.7	5.5	4.0	-	-	-	3.0	-	-	-
	8.0	-	7.0	7.5	8.0	-	-	-	4.0	-	-	-
New York University	7.5*	-	5.0	5.7	-	-	-	3.0*	2.6	-	-	-
	9.0*	-	8.75	8.0	-	-	-	10.0*	4.75	-	-	-
Yale	3.1	3.1	2.8	3.7	3.6	2.5*	2.2	-	2.6	2.0	3.0*	-
	6.9	8.0	6.3	6.4	6.4	5.5*	5.6	-	5.9	4.5	5.0*	-

Note: 1. Starred numbers indicate an insufficient total number of graduate students to make a valid projection.

2. North Carclina, although in the top 21 graduate schools attended by Woodrow Wilson Fellows, had insufficient students in these departments to merit its inclusion.

TABLE IV

Department size and length of time to Ph.D.
by selected colleges and fields.

Number indicates relative size of department, with 1 indicating smallest department and 11 the largest.

Chemistry

6.	Chicago
4.	Princeton
7.	MIT
5.	Harvard
10.	Wisconsin
9.	Berkeley
3.	Columbia
8.	Cornell
1.	Yale
2.	Stanford

Math

6.	Chicago
7.	MIT
8.	Michigan
10.	Wisconsin
	Princeton
3.	Columbia
2.	Harvard
5.	Stanford
1.	Yale
9.	Berkeley

Economics

10.	MIT
5.	Michigan
4.	Yale
11.	Wisconsin
1.	Princeton
3.	Stanford
9.	Harvard
6.	Chicago
8.	Berkeley
7.	Columbia

English

1.	Princeton
2.	Cornell
3.	Yale
4.	Stanford
6.	Harvard
9.	Columbia
7.	Berkeley
8.	Michigan
5.	Chicago

History

1.	Cornell
2.	Princeton
4.	Stanford
5.	Harvard
3.	Yale
7.	Chicago
9.	Columbia
10.	Wisconsin
8.	Berkeley
6.	Michigan

Philosophy

10.	Wisconsin
2.	Princeton
9.	Michigan
6.	Yale
1.	Cornell
5.	Stanford
8.	Berkeley
9.	Harvard
7.	Columbia
3.	Chicago

Schools are listed in order from shortest completion time at the top of the list to longest completion time at the bottom.

TABLE V

ABD Pool

Field	Percent of field total	% of Men	% of Women
Classics	5.9	4.4	1.5
English/Comparative Literature	11.1	6.3	4.8
Fine Arts	19.5	6.9	12.6
Philosophy	9.5	7.9	1.6
Religion	5.8	3.9	1.9
Music	18.1	10.6	7.5
Foreign Languages/Linguistics	11.25	5.8	5.4
$Other_1$	13.0	8.9	4.1
$Other_2$	8.7	5.2	3.5
American Studies	16.3	11.6	4.7
Archeology	10.3	5.1	5.2
Area Studies	23.1	11.5	11.5
Economics	11.7	10.7	.1
Geography	11.5	3.8	7.7
History	10.4	7.1	3.3
Political Science	11.6	8.8	2.8
Psychology	6.4	3.8	2.6
Sociology/Anthropology	16.4	10.7	5.6
Astronomy	15.8	15.8	
Biology	3.8	2.5	1.3
Chemistry	2.6	.5	2.1
Mathematics	7.0	7.0	
Geology	10.0	10.0	
Physics	4.7	4.0	.7
Statistics/Computer Science	15.7	11.8	3.9
$Other_3$	4.1	2.0	2.0

TABLE VI

CHANGES BY FIELD

Field	Male %	Female %
Classics	5.3	5.3
Eng/Comp. Lit.	4.4	5.4
Fine Arts	5.9	9.3
Philosophy	6.4	4.4
Religion	39.1	23.5
Music	8.1	6.25
For. Lang/Ling	8.8	9.5
$Other_1$	46.7	37.5
$Other_2$	69.8	81.5
Amer. Stud.	25.0	7.7
Archeology	20.7	21.4
Area Stud.	13.3	50.0
Economics	7.7	
History	4.4	9.9
Poli. Sci.	7.2	9.1
Psychology	15.9	11.4
Soc/Anthro	8.8	17.7
Astronomy	9.0	
Biology	9.2	4.1
Chemistry	2.1	
Mathematics	4.0	7.9
Ohysics	1.5	
Stat/Compu. Sci.	69.8	77.8
$Other_3$	57.0	40.0

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TABLE V11

Male Degree Completion Rates by School

School	Ph.D.	ABD	MA	No degree	Professional
Harvard	80.2	5.6	4.4	1.7	8.0
Columbia	66.8	14.7	8.2	2.2	8.2
Berkeley	75.8	10.8	9.9	.4	3.1
Chicago	67.9	11.5	4.8	4.2	11.5
Princeton	85.3	7.8	2.4	1.4	3.1
Stanford	82.4	6.7	3.6	1.6	5.7
Wisconsin	77.5	11.3	7.3	2.0	2.0
Michigan	75.0	10.3	8.6	2.6	3.4
Cornell	89.5	4.0	4.0	-	2.4
Johns Hopkins	83.3	5.6	6.7	-	4.4
M.I.T.	91.2	5.6	1.6	1.6	-
University of Pennsylvania	65.0	10.0	15.0	5.0	5.0
Indiana	75.7	7.1	8.6	2.9	5.7
Northwestern	90.8	6.2	1.5	-	1.5
Virginia	68.0	10.0	14.0	6.0	2.0
Illinois	84.1	4.8	9.5	-	1.6
Duke	80.3	4.5	7.6	1.5	6.1
Toronto	61.7	8.5	23.4	-	6.4
NYU	59.0	20.5	5.1	5.1	10.3
Yale	79.3	8.9	5.3	-	6.5

Average: 76.9

TABLE V111

Female Degree Completion Rates by School

School	Ph.D.	ABD	MA	No Degree	Professional
Harvard	79.6	7.9	7.9	2.6	2.0
Columbia	52.5	10.0	30.8	2.5	4.2
Berkeley	55.7	7.1	30.0	1.4	5.7
Chicago	48.1	23.1	28.8	-	-
Princeton	70.4	18.5	7.4	-	3.7
Stanford	54.4	11.8	26.5	4.4	2.9
Wisconsin	51.7	10.3	32.8	3.4	1.7
Michigan	48.3	10.3	31.0	3.4	6.9
Cornell	63.3	10.0	16.7	3.3	6.7
Johns Hopkins	62.5	12.5	15.6	9.4	-
M.I.T.	93.3	-	6.7	-	-
University of Pennsylvania	50.0	14.7	26.5	2.9	5.9
Indiana	57.1	14.3	21.4	7.1	-
Northwestern	63.0	18.5	11.1	3.7	3.7
Virginia	50.0	5.6	33.3	5.6	5.6
Illinois	59.3	14.8	18.5	7.4	-
Duke	38.9	27.8	33.3	-	-
Toronto	54.2	4.2	37.5	4.2	-
NYU	58.3	27.8	13.9	-	-
Yale	72.8	16.7	4.4	3.5	2.6

Average: 59.2